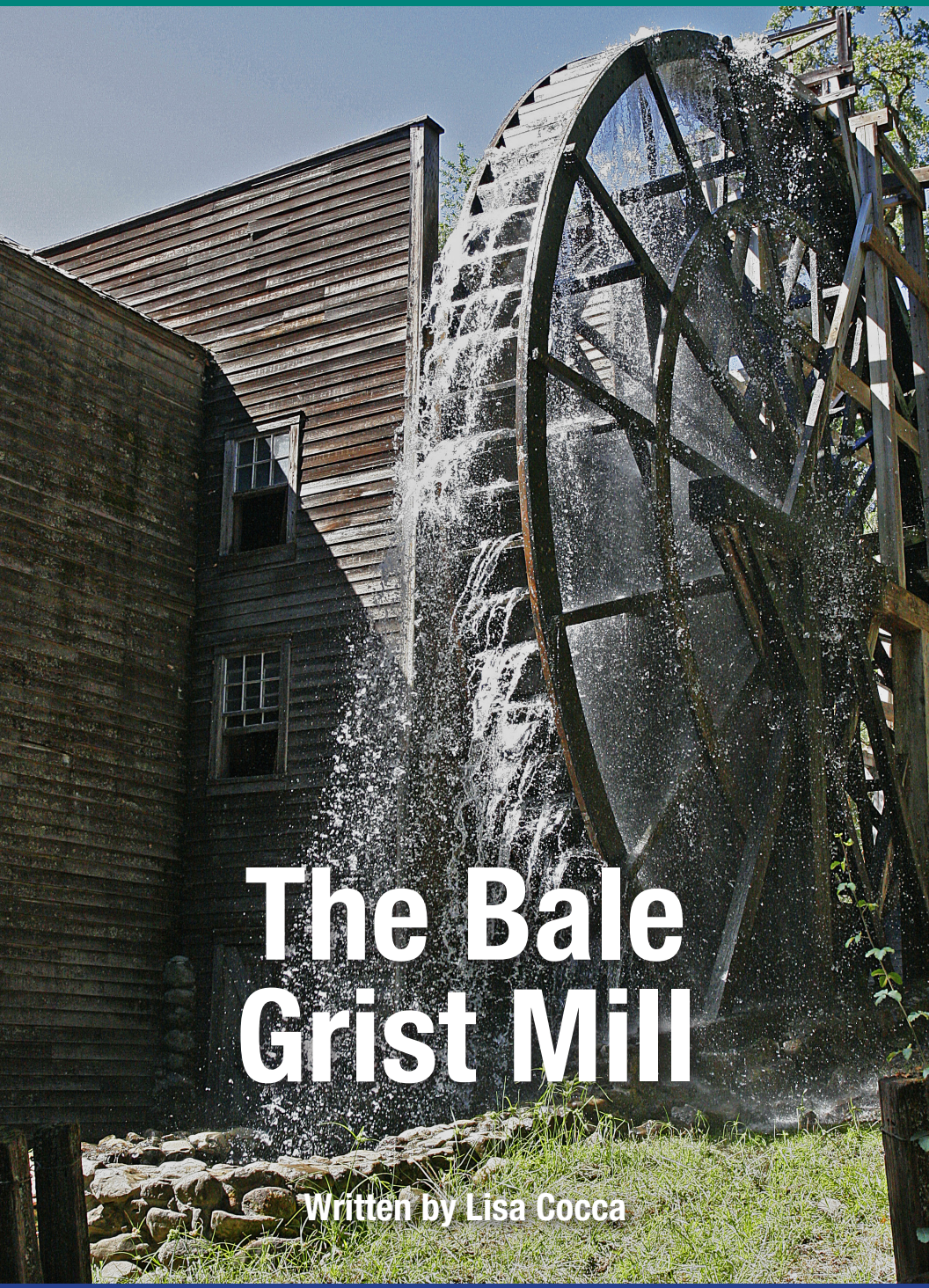
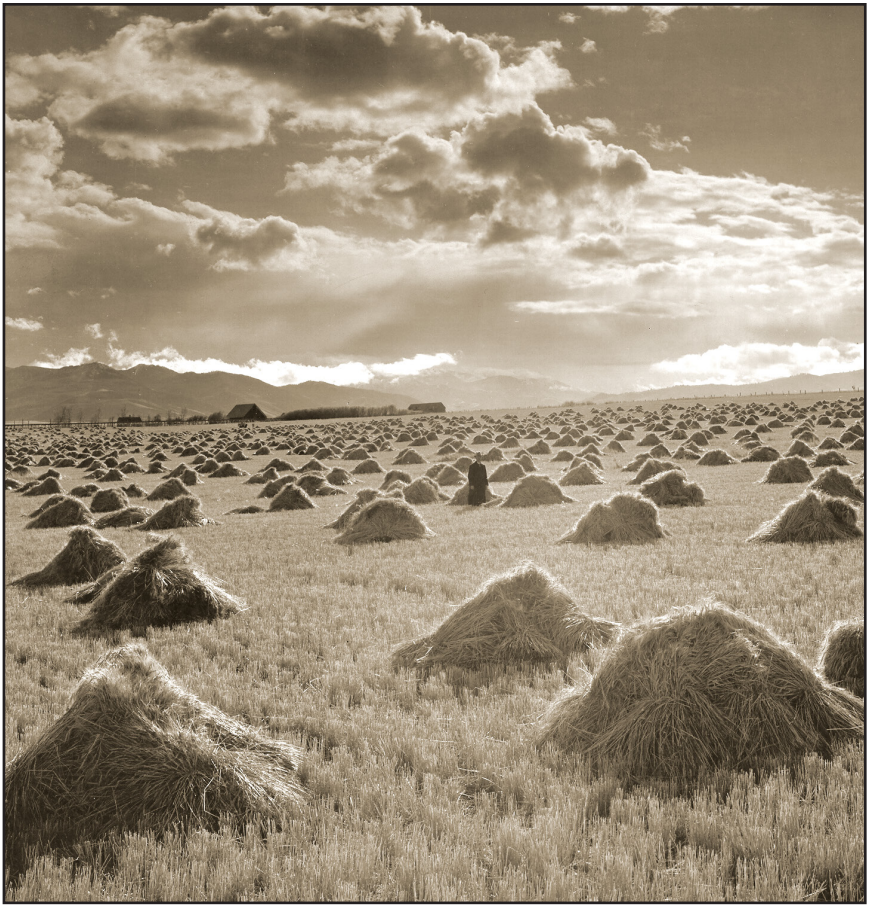


The Bale Grist Mill

Written by Lisa Cocca

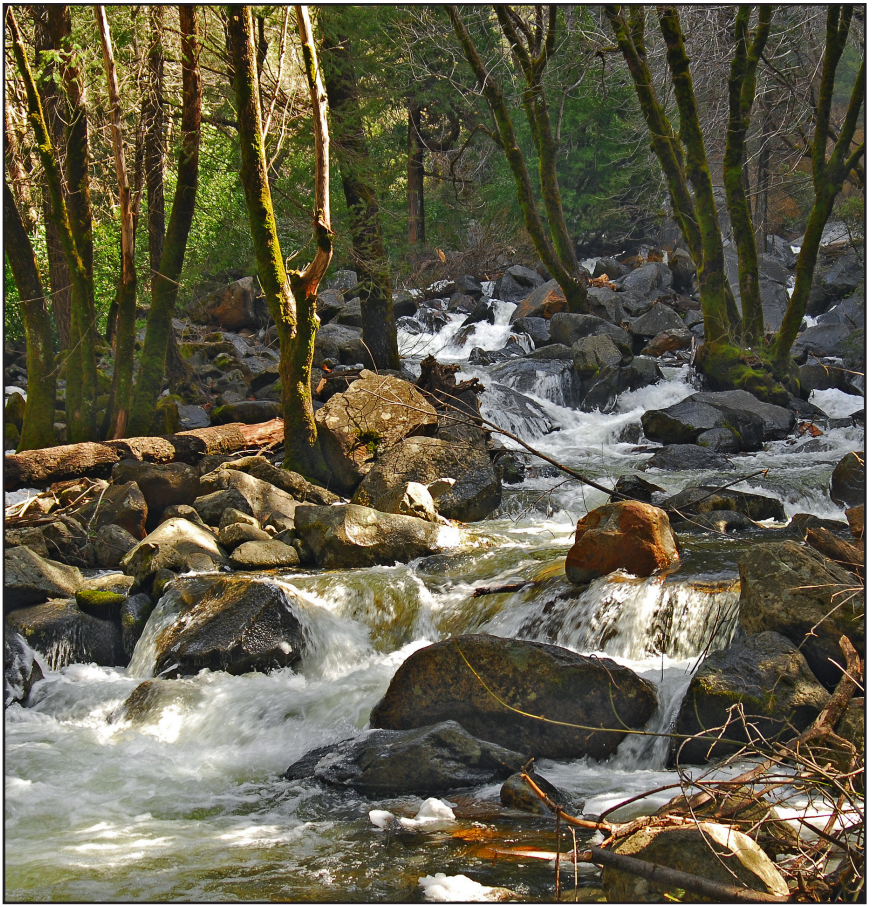
California Education and the Environment Initiative
History-Social Science Standard 2.4.1.

Wheat was king in California. It was the late 1800s. Rich soil filled the valley. The soil was perfect for growing the grain. Both big and small farms grew wheat.



One big farm grew more than a half million baskets of wheat. That would fill more than seven swimming pools! And that was all in one year!

What did the farmers do with this wheat? They sent much of it to grist mills. These mills ground the grain into flour.



Dr. Edward T. Bale first built the Bale Grist Mill in 1846. He knew it needed to be near water. The flowing water turns the big wheel on the outside of the mill. This is the power that turns a big grinding stone inside the mill. He picked a place close to Mill Creek.

His workers put large stones there. They built the mill on the stone foundation. They lined the creek with stones to keep the water in the channel.

They used trees from the area. They cut the trees to make the walls and roof. The men needed many tall redwoods to build the mill. They cut the bark off some of the trees. They left the bark on others.

Bale's men used more trees to build a 20-foot high waterwheel. They built it on the side of the mill.

The men built dams and ditches to make water flow from Mill Creek to the big waterwheel.

They built a long flume (like a slide). The flume has tall sides to hold the water inside.

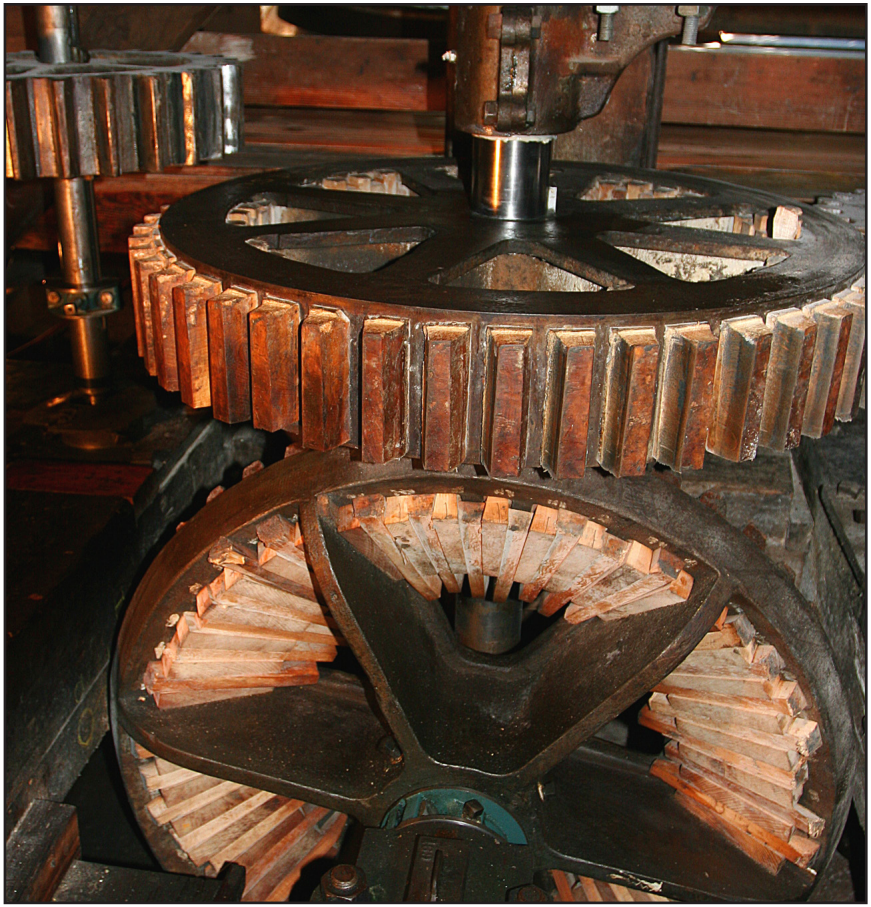
The water poured through the flume to turn the waterwheel. The waterwheel was big, but it was not big enough. It did not provide enough power to grind all the wheat.

Farmers grew more and more wheat. They needed a bigger mill to grind all the wheat.

The men went back to work on the mill. They built an even bigger waterwheel to produce more power. The new wheel stood 36 feet high! It was the biggest of its kind in the whole country.

Then, it did not rain for a long time. Almost no rain fell from 1863 to 1865. Without rain, the farmers could not grow as much wheat. Without rain, there was no water in Mill Creek to run the mill.

The miller added a steam engine. It took the place of the waterwheel when there was not any rain. Now the mill could keep working year-round.

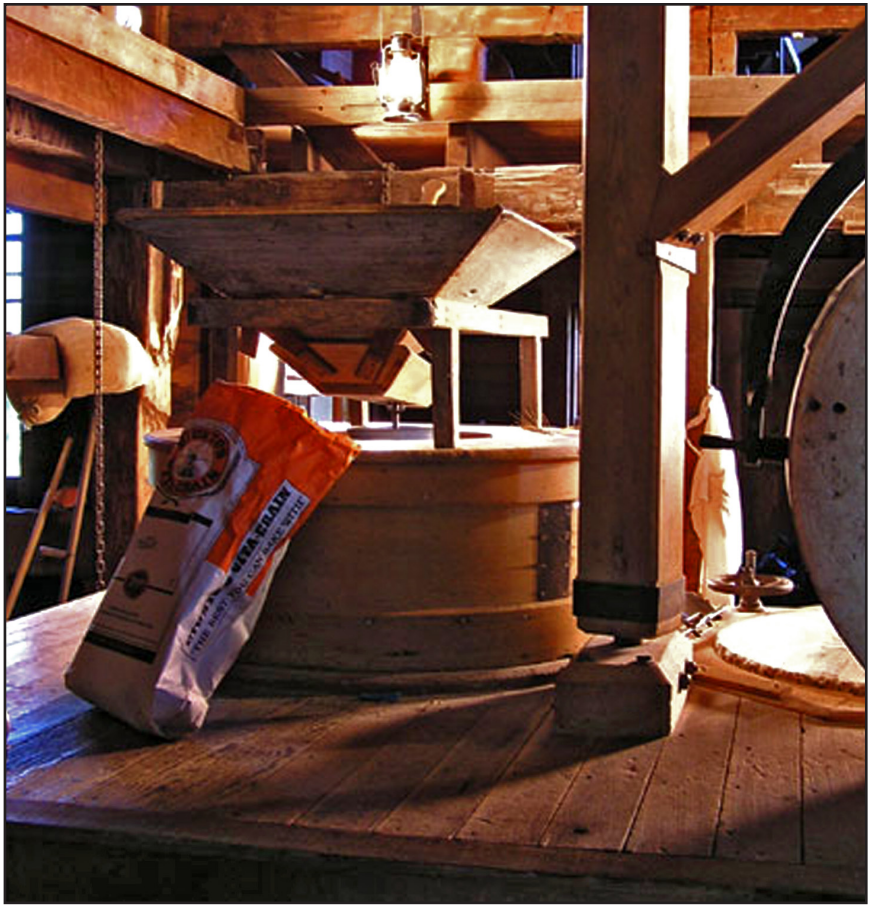


The miller worked inside the cool, damp mill. He put the wheat grains in a special box. Wooden gears turned and moved the box. It brought the wheat down to the grinding stones.

The box dumped the wheat through a large hole in the runner stone (the top stone) which then went to the bed stone (the bottom stone). The top stone turned. It ground the hard grains into soft flour.

People used the flour to make bread and other foods. The Bale Grist Mill made flour for many years.

New mills opened in the area. They had new, faster machines. They had new ways of turning the grain into flour.



The Bale Mill could not work as fast as the new mills. The mill stopped doing business in 1905.

Today the Bale Grist Mill is in a state park near Saint Helena, California. Many boys and girls go to the park and see the mill. They see how the mill worked long ago.

Unit Title: **From Field to Table**
Grade: **2**

History–Social Science Standard 2.4.1.
Supports ELA Standard: Reading 2.2.5.

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